

WHAT IS CLAIMED IS:

1. For use in a wireless network, a base station capable of controlling the use of the reduced slot cycle mode by mobile stations communicating with said base station, said base station comprising:

a traffic monitor capable of monitoring message traffic levels handled by said base station; and

a reduced slot cycle controller capable of receiving traffic statistics information from said traffic monitor and determining whether use of said reduced slot cycle mode by said mobile stations communicating with said base station interferes with scheduling of paging message transmissions by said base station.

2. The base station as set forth in Claim 1 wherein said reduced slot cycle controller, in response to a determination that said use of the reduced slot cycle mode by said mobile stations does interfere with said scheduling of paging message transmissions by said base station, causes said base station to transmit a first control message indicating that the reduced slot cycle mode is disabled in said base station.

3. The base station as set forth in Claim 2 wherein said first control message is transmitted in an overhead channel.

4. The base station as set forth in Claim 2 wherein said first control message is transmitted in a traffic channel.

5. The base station as set forth in Claim 2 wherein said first control message causes a selected target mobile station already operating in the reduced slot cycle mode to switch to operating in the full slot cycle mode.

6. The base station as set forth in Claim 2 wherein said first control message causes new mobile stations accessing said base station to operate only in the full slot cycle mode.

7. The base station as set forth in Claim 6 wherein said reduced slot cycle controller is further capable of causing said base station to transmit a second control message to a selected target mobile station operating in the full slot cycle mode, said second control message causing said selected target mobile station to switch to operating in the reduced slot cycle mode.

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8. The base station as set forth in Claim 7 wherein said reduced slot cycle controller causes said base station to transmit said second control message based on a quality of service level associated with said selected target mobile station.

9. A wireless network comprising a plurality of base stations, each of said plurality of base stations capable of controlling the use of the reduced slot cycle mode by mobile stations communicating with said each base station, wherein said each base station comprises:

a traffic monitor capable of monitoring message traffic levels handled by said each base station; and

a reduced slot cycle controller capable of receiving traffic statistics information from said traffic monitor and determining whether use of said reduced slot cycle mode by said mobile stations communicating with said each base station interferes with scheduling of paging message transmissions by said each base station.

10. The wireless network as set forth in Claim 9 wherein said reduced slot cycle controller, in response to a determination that said use of the reduced slot cycle mode by said mobile stations does interfere with said scheduling of paging message transmissions by said each base station, causes said each base station to transmit a first control message indicating that the reduced slot cycle mode is disabled in said each base station.

11. The wireless network as set forth in Claim 10 wherein said first control message is transmitted in an overhead channel.

12. The wireless network as set forth in Claim 10 wherein said first control message is transmitted in a traffic channel.

13. The wireless network as set forth in Claim 10 wherein said first control message causes a selected target mobile station already operating in the reduced slot cycle mode to switch to operating in the full slot cycle mode.

14. The wireless network as set forth in Claim 10 wherein said first control message causes new mobile stations accessing said each base station to operate only in the full slot cycle mode.

15. The wireless network as set forth in Claim 14 wherein said reduced slot cycle controller is further capable of causing said each base station to transmit a second control message to a selected target mobile station operating in the full slot cycle mode, said second control message causing said selected target

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mobile station to switch to operating in the reduced slot cycle mode.

16. The wireless network as set forth in Claim 15 wherein said reduced slot cycle controller causes said each base station to transmit said second control message based on a quality of service level associated with said selected target mobile station.

17. For use in a wireless network, a method of controlling the use of the reduced slot cycle mode by mobile stations communicating with a base station, the method comprising the steps of:

monitoring message traffic levels handled by the base station;
and

determining from traffic statistics information gathered by the step of monitoring whether use of the reduced slot cycle mode by the mobile stations communicating with the base station interferes with scheduling of paging message transmissions by the base station.

18. The method as set forth in Claim 17 further comprising the step, in response to a determination that the use of the reduced slot cycle mode by the mobile stations does interfere with the scheduling of paging message transmissions by the base station, of transmitting a first control message indicating that the reduced slot cycle mode is disabled in the base station.

19. The method as set forth in Claim 18 wherein the first control message is transmitted in an overhead channel.

20. The method as set forth in Claim 18 wherein the first control message is transmitted in a traffic channel.

21. The method as set forth in Claim 18 wherein the first control message causes a selected target mobile station already operating in the reduced slot cycle mode to switch to operating in the full slot cycle mode.

22. The method as set forth in Claim 18 wherein the first control message causes new mobile stations accessing the base station to operate only in the full slot cycle mode.

23. A mobile station for communicating with a base station of a wireless network, said mobile station capable of operating in a full slot cycle mode and a reduced slot cycle mode, wherein said mobile station is capable of receiving from said base station a first control message indicating that the reduced slot cycle mode is disabled in said base station and, in response to said first control message, said mobile station operates only in the full slot cycle mode.

24. The mobile station as set forth in Claim 23 wherein said first control message causes said mobile station to switch from operating in the reduced slot cycle mode to operating in the full slot cycle mode.